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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,558	03/23/2004	Rod Lovett	TOW-0001	2565

7590

12/02/2005

Shawn Hunter  
4058 Tartan Lane  
Houston, TX 77025

EXAMINER
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KIM, CHRISTOPHER S

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/806,558	LOVETT, ROD	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christopher S. Kim	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The response filed September 19, 2005 is acknowledged.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pasteur (2,668,082) in view of Levin (6,194,160).

Pasteur discloses a mosquito misting system comprising: a fluid reservoir 1; a misting nozzle 79; a conduit 77; a pump 20; an agitator 12 having a pump 6, 8. A controller is inherent but Pasteur does not disclose a programmable digital processor or a timer. Levin discloses a PC compatible computer to automate timed operation of a pump and agitator (see column 10, lines 45-53). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a computer to automate timed operation of the device of Pasteur.

4. Claims 1, 5, 8, 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Pasteur (2,668,082).

Bryan discloses a mosquito misting system comprising: a fluid reservoir 18; a misting nozzle 7; a conduit 23; a pump 19; a computer controller 8, a timer (see column 7, line 3); a transmitter 25. Bryan discloses a blower/pump 10 but does not disclose an

agitator. Pasteur teaches to return a portion of air from blower 6 to agitator 12 to agitate the fluid in tank 1. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided returned a portion of the air from blower 10 to tank 18 in the device of Bryan via an agitator as taught by Pasteur to agitate the fluid in tank 18.

In claim 5, the recitation "...for transmission of selected information relating to the system to a remote monitoring location" merely recites the intended use of the transmitter. A "remote monitoring location" has not been positively claimed.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dugan et al. (5,611,172) in view of Underwood (4,650,792), Pasteur (2,668,082) and Levin (6,194,160).

Dugan discloses a mosquito misting system comprising: a fluid reservoir 48; a misting nozzle 44; a conduit 56, 46; a pump 50; a computer controller 18, a timer 52. Dugan does not disclose an agitator. Underwood discloses an agitator 14 for mosquito insecticide in tank 12. Pasteur teaches to agitate the fluid (insect destroying solution) in tank 1 using an agitator 12 and pump 6, 8. Although Dugan implicitly teaches complete computer control (computer 18 controls pump 50, timer 52, scale 21 and vacuum system 14), Levin explicitly teaches to use a PC compatible computer to automate timed operation of a pump and agitator (see column 10, lines 45-53). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided an agitator to the device of Dugan as taught by Underwood, Pasteur and Levin to automatically agitate the spray fluid.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Pasteur (2,668,082) or Dugan et al. (5,611,172) in view of Underwood (4,650,792), Pasteur (2,668,082) and Levin (6,194,160) as applied to claim 1 above, and further in view of Khurgin et al. (4,433,577).

Bryan in view of Pasteur discloses the limitations of the claimed invention with the exception of the plurality of float sensor assemblies. Dugan in view of Underwood, Pasteur and Levin also discloses the limitations of the claimed invention with the exception of the plurality of float sensor assemblies. Khurgin teaches a plurality of float level sensor assemblies in figure 14. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a plurality of float level sensor assemblies in the device of Bryan in view of Pasteur or Dugan in view of Underwood, Pasteur and Levin as taught by Khurgin to sense the level of the liquid in the tank.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Pasteur (2,668,082) or Dugan et al. (5,611,172) in view of Underwood (4,650,792), Pasteur (2,668,082) and Levin (6,194,160) as applied to claim 1 above, and further in view of Gross (6,547,529).

Bryan in view of Pasteur discloses the limitations of the claimed invention with the exception of the pressure switch. Dugan in view of Underwood, Pasteur and Levin also discloses the limitations of the claimed invention with the exception of the pressure switch. Gross teaches a pressure switch 8 and controller 15 (equivalent to Bryan's controller 8 and Dugan's controller 18) to stop dry run of pump 16. It would have been

obvious to a person having ordinary skill in the art at the time of the invention to have provided a pressure switch to the device of Bryan in view of Pasteur or Dugan in view of Underwood, Pasteur and Levin as taught by Gross to prevent dry run of the pump.

8. Claims 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dugan et al. (5,611,172) in view of Underwood (4,650,792), Pasteur (2,668,082) and Levin (6,194,160) as applied to claim 1 above, and further in view of Sieminski (6,823,239).

Dugan in view of Underwood, Pasteur and Levin discloses the limitations of the claimed invention with the exception of the remote control. Sieminski teaches a remote control 101 for controller 102 for control using the Internet. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a remote control to the device of Dugan in view of Underwood, Pasteur and Levin as taught by Sieminski for remote control using the Internet.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Pasteur (2,668,082) as applied to claim 5 above, and further in view of Gross (6,547,529).

Bryan in view of Pasteur discloses the limitations of the claimed invention with the exception of a pressure switch. Gross teaches a pressure switch 8 and controller 15 (equivalent to Bryan's controller 8) to stop dry run of pump 16. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a pressure switch to the device of Bryan in view of Pasteur as taught by Gross to prevent dry run of the pump.

10. Claims 11, 12, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Khurgin et al. (4,433,577).

Bryan discloses a mosquito misting system comprising: a fluid reservoir 18; a misting nozzle 7; a conduit 23; a pump 19; a computer controller 8, a timer (see column 7, line 3); a transmitter 25.

Bryan does not disclose a level sensor assembly having a plurality of floating sensor assemblies. Khurgin teaches a level sensor assembly having a plurality of floating level sensor assemblies 96 in figure 14. In figure 6, Khurgin teaches to route the signal from the level sensor assembly to a recorder K (equivalent to Bryan's recorder 8). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a plurality of float level sensor assemblies in the device of Bryan as taught by Khurgin to sense the level of the liquid in the tank.

In claim 17, the recitation "...for transmission of selected information relating to the system to a remote monitoring location" merely recites the intended use of the transmitter. A "remote monitoring location" has not been positively claimed.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Khurgin et al. (4,433,577) as applied to claim 11 above, and further in view of Pasteur (2,668,082).

Bryan in view of Khurgin discloses the limitations of the claimed invention including a blower/pump 10 but does not disclose an agitator. Pasteur teaches to return a portion of air from blower 6 to agitator 12 to agitate the fluid in tank 1. It would have been obvious to a person having ordinary skill in the art at the time of the invention to

have provided returned a portion of the air from blower 10 to tank 18 in the device of Bryan in view of Khurgin via an agitator as taught by Pasteur to agitate the fluid in tank 18.

12. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Khurgin et al. (4,433,577) as applied to claim 11 above, and further in view of Gross (6,547,529).

Bryan in view of Khurgin discloses the limitations of the claimed invention with the exception of a pressure switch. Gross teaches a pressure switch 8 and controller 15 (equivalent to Bryan's controller 8) to stop dry run of pump 16. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a pressure switch to the device of Bryan in view of Khurgin as taught by Gross to prevent dry run of the pump.

13. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Khurgin et al. (4,433,577) as applied to claim 17 above, and further in view of Gross (6,547,529).

Bryan in view of Khurgin discloses the limitations of the claimed invention with the exception of a pressure switch. Gross teaches a pressure switch 8 and controller 15 (equivalent to Bryan's controller 8) to stop dry run of pump 16. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a pressure switch to the device of Bryan in view of Pasteur and Khurgin as taught by Gross to prevent dry run of the pump.



14. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (6,669,105) in view of Pasteur (2,668,082) and Khurgin et al. (4,433,577).

Bryan discloses a mosquito misting system comprising: a fluid reservoir 18; a misting nozzle 7; a conduit 23; a pump 19; a computer controller 8, a timer (see column 7, line 3); a transmitter 25.

Bryan discloses a blower/pump 10 but does not disclose an agitator. Pasteur teaches to return a portion of air from blower 6 to agitator 12 to agitate the fluid in tank 1. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided returned a portion of the air from blower 10 to tank 18 in the device of Bryan via an agitator as taught by Pasteur to agitate the fluid in tank 18.

Additionally, Bryan does not disclose a level sensor assembly having a plurality of floating sensor assemblies. Khurgin teaches a level sensor assembly having a plurality of floating level sensor assemblies 96 in figure 14. In figure 6, Khurgin teaches to route the signal from the level sensor assembly to a recorder K (equivalent to Bryan's recorder 8). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a plurality of float level sensor assemblies in the device of Bryan as taught by Khurgin to sense the level of the liquid in the tank.

15. Claims 11, 12, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dugan et al. (5,611,172) in view of Khurgin et al. (4,433,577).

Dugan discloses a mosquito misting system comprising: a fluid reservoir 48; a misting nozzle 44; a conduit 56, 46; a pump 50; a computer controller 18; a transmitter 52.

Dugan does not disclose a level sensor assembly having a plurality of floating sensor assemblies. Khurgin teaches a level sensor assembly having a plurality of floating level sensor assemblies 96 in figure 14. In figure 6, Khurgin teaches to route the signal from the level sensor assembly to a recorder K (equivalent to Dugan's recorder 18). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a plurality of float level sensor assemblies in the device of Dugan as taught by Khurgin to sense the level of the liquid in the tank.

In claim 17, the recitation "...for transmission of selected information relating to the system to a remote monitoring location" merely recites the intended use of the transmitter. A "remote monitoring location" has not been positively claimed.

16. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dugan et al. (5,611,172) in view of Khurgin et al. (4,433,577) as applied to claim 11 above, and further in view of Underwood (4,650,792) and Levin (6,194,160).

Dugan in view of Khurgin et al. discloses the limitations of the claimed invention with the exception of an agitator. Underwood discloses an agitator 14 for mosquito insecticide in tank 12. Although Dugan implicitly teaches complete computer control (computer 18 controls pump 50, timer 52, scale 21 and vacuum system 14), Levin explicitly teaches to use a PC compatible computer to automate timed operation of a pump and agitator (see column 10, lines 45-53). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided an agitator to the device of Dugan in view of Khurgin as taught by Underwood and Levin to automatically agitate the spray fluid.

17. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dugan et al. (5,611,172) in view of Khurgin et al. (4,433,577) as applied to claim 11 above, and further in view of Gross (6,547,529).

Dugan in view of Khurgin discloses the limitations of the claimed invention with the exception of a pressure switch. Gross teaches a pressure switch 8 and controller 15 (equivalent to Dugan's controller 18) to stop dry run of pump 16. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a pressure switch to the device of Dugan in view of Khurgin as taught by Gross to prevent dry run of the pump.

18. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dugan et al. (5,611,172) in view of Khurgin et al. (4,433,577) as applied to claim 11 above, and further in view of Sieminski (6,823,239).

Dugan view of Khurgin discloses the limitations of the claimed invention with the exception of the remote control. Sieminski teaches a remote control 101 for controller 102 for control using the Internet. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a remote control to the device of Dugan view of Khurgin as taught by Sieminski for remote control using the Internet.

19. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dugan et al. (5,611,172) in view of Khurgin et al. (4,433,577) as applied to claim 17 above, and further in view of Gross (6,547,529).

Dugan in view of Khurgin discloses the limitations of the claimed invention with the exception of a pressure switch. Gross teaches a pressure switch 8 and controller 15 (equivalent to Dugan's controller 18) to stop dry run of pump 16. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a pressure switch to the device of Dugan in view of Khurgin as taught by Gross to prevent dry run of the pump.

20. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dugan et al. (5,611,172) in view of Underwood (4,650,792), Levin (6,194,160) and Khurgin et al. (4,433,577).

Dugan discloses a mosquito misting system comprising: a fluid reservoir 48; a misting nozzle 44; a conduit 56, 46; a pump 50; a computer controller 18.

Dugan does not disclose an agitator. Underwood discloses an agitator 14 for mosquito insecticide in tank 12. Although Dugan implicitly teaches complete computer control (computer 18 controls pump 50, timer 52, scale 21 and vacuum system 14), Levin explicitly teaches to use a PC compatible computer to automate timed operation of a pump and agitator (see column 10, lines 45-53). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided an agitator to the device of Dugan as taught by Underwood and Levin to automatically agitate the spray fluid.

Additionally, Dugan does not disclose a level sensor assembly having a plurality of floating sensor assemblies. Khurgin teaches a level sensor assembly having a plurality of floating level sensor assemblies 96 in figure 14. In figure 6, Khurgin teaches

to route the signal from the level sensor assembly to a recorder K (equivalent to Dugan's recorder 18). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a plurality of float level sensor assemblies in the device of Dugan as taught by Khurgin to sense the level of the liquid in the tank.

***Allowable Subject Matter***

21. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

22. Applicant's arguments filed September 19, 2005 have been fully considered but they are not persuasive.

Applicant argues that the prior art does not show an agitator having a pump drawing outside air into the fluid reservoir. Pasteur shows a pump 6, 8 drawing outside air into the fluid reservoir 1.

Applicant argues that Pasteur and Levin are not properly combinable. Levin is pertinent to the particular problem of automation controller.

Applicant argues that there is no motivation to combine the teachings of Levin and Pasteur. Applicant may disagree with the reasons set forth by the examiner, but it seems unreasonable for applicant to assert that there is no motivation. The motivation

was clearly indicated in this and in the prior Office action. Levin discloses a PC compatible computer to automate timed operation of a pump and agitator (**see column 10, lines 45-53**).

Applicant argues that Dugan does not teach a mosquito misting system. Dugan discloses, in column 1, lines 20-25, the necessity of protection from insects. Additionally, applicant's claimed invention of "a mosquito misting system" is merely a name of the claimed invention. No structural element is claimed to distinguish the claimed invention from the prior art.

Applicant argues that Khurgin merely teaches a single float 92. The claimed invention calls for a level sensor assembly having a plurality of float sensor assemblies. Khurgin discloses a plurality of float sensor assemblies 92. The plurality of assemblies 92 are float sensors. The claims do not call for a plurality of floats.

Applicant argues that Khurgin is non-analogous art. Khurgin is pertinent to the particular problem of level sensing.

Applicant argues that Gross does not disclose a pressure switch, that the device of Gross senses the presence of fluid. The claims call for a pressure switch operably associated with the fluid conduit to detect a pressure drop within the conduit. The claimed invention does not appear to be distinguished from the device of Gross. The device of Gross is considered a pressure switch in that it is associated with the fluid conduit and is able to perform the function of detecting a pressure drop. The presence or lack of fluid is (or can be) indicative of a pressure drop. The claims do not recite any structural detail to distinguish applicant's pressure switch from that of Gross.

***Conclusion***

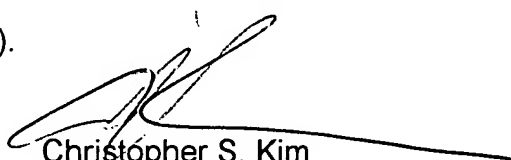
23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'C. Kim', with a long horizontal line extending to the right.

Christopher S. Kim  
Primary Examiner  
Art Unit 3752

CK